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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,946	12/14/2003	Jeffrey D. Davies	111803.P002	3727
7590	09/16/2005			
EXAMINER				
SMITH, MATTHEW J				
			ART UNIT	PAPER NUMBER
			3672	
DATE MAILED: 09/16/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/735,946	DAVIES, JEFFREY D.
	Examiner Matthew J. Smith	Art Unit 3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-26,28, and 30-35 is/are rejected.
- 7) Claim(s) 27 and 29 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14Dec03 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>14Dec03</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the drill motor simultaneously powered by the ATV and decoupled from the ATV (claim 27) and drill mast stand (claim 29) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "602" [0045] has been used to designate both transmission shaft and transmission case. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 257 (figure 2), 432 (figure 4B), 470 (figure 4D), 730 (figure 7), 1050 (figure 10), 1154 (figure 11B), 1210 (figure 12), and 1312 (figure 13).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Wright et al. (5950741).

Wright et al. disclose an apparatus comprising: a means for propelling an all terrain vehicle (ATV) on the ground (col. 3, line 60); a means 12 for orienting a drill motor in space, wherein the drill motor is coupled with the ATV; a means 10 for drilling into the ground; a means (col. 3, lines 62-63) for controlling the drill motor; and a stem auger means 16 for drilling into the ground while a sample tube 79 is conveyed proximate to a drill bit.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. in view of Brazell, II (4938296).

Wright et al. disclose a method comprising: powering a drill motor 72; controlling the drill motor; drilling into the earth to a depth; solid stem auger drilling; and taking a standard penetration test core sample at the depth but not power derived from an all terrain vehicle ATV engine.

Brazell, II presents deriving power from a vehicle engine power take off (p.t.o.) for a drilling rig (col. 3, lines 57-61).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to power the Wright et al. drill motor with an engine p.t.o., as presented by Brazell, II, as suggested by Wright et al. (col. 3, line 29), “power unit may be mounted ...” (underlining mine).

Claims 8-11, 19, 20, 28, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher (5363925) in view of Brazell, II.

Gallagher disclose an all terrain vehicle (ATV) 10; a hydraulic drill motor 24 configured to turn a drill bit (end of auger 26), the drill motor slidingly disposed on the drill mast 14, a manual control 64 configured to operate the drill motor such that a hole can be drilled by the drill bit; a hydraulic pump 62; the drill mast configured to rotate about one or two axes relative to the ATV (col. 52-56); and a solid stem auger drilling but not a power takeoff configured to deliver power from an ATV engine; the drill motor

configured to be powered from the power takeoff; the hydraulic pump configured to be operated by the power takeoff and the drill motor configured to be powered from the power takeoff.

Brazell, II presents a power takeoff configured to deliver power from an ATV engine; the drill motor configured to be powered from the power takeoff (p.t.o.); the hydraulic pump configured to be operated by the power takeoff and the drill motor configured to be powered from the power takeoff for a drilling rig (col. 3, lines 57-61).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to power the Wright et al. drill motor with an engine p.t.o. as presented and suggested by Brazell, II (col. 3, lines 2-3) "...capable of being supported by a relatively small vehicle."

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. in view of Brazell II and Moseley as applied to claim 1 above, and further in view of Nosewicz et al. (5211248).

The combination discloses an ATV p.t.o powering a drill but not drilling into the earth with a sample tube residing within a hollow drill bit.

Nosewicz et al. depict drilling into the earth with a sample tube residing within a hollow drill bit 150.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to substitute the combined sampling device with the Nosewicz et al. sampling device, as indicated by applicant "Many different types of drilling ... ". [0059].

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. in view of Brazell II as applied to claim 1 above, and further in view of Pestotnik (6182784).

The combination discloses an ATV p.t.o powering a drill but not placing an ATV transmission into a neutral position such that power is not delivered to ATV wheels while power is directed to the p.t.o.

Pestotnik discusses placing an ATV transmission into a neutral position such that power is not delivered to ATV wheels while power is directed to the p.t.o (col. 6, lines 54-66).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to place the ATV in neutral to operate the p.t.o, as discussed by Pestotnik, in order to drill with the ATV stationary.

Claims 7 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. in view of Brazell II as applied to claim 1, 8 and 28, respectively, above, and further in view of Rust et al. (6527063).

The combination discloses an ATV p.t.o powering a drill but not the control utilizing a wireless link to provide control of the drill motor using a remote control device, the remote control device controlling a position of the drill motor on the drill mast, or the remote control device controlling a speed of rotation of the drill bit.

Rust et al. portray wireless control (col. 12, line 7) of a drilling operation utilizing the p.t.o. (col. 11, line 55).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to control the drill via remote control, as portrayed by Rust et al., in order to better see the drill during drilling.

Claims 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. in view of Brazell II as applied to claim 8 above, and further in view of Moseley (5248001).

The combination discloses an ATV p.t.o powering a drill but not a sheave rotatably configured on the drill mast; a motor coupled with the sheave; an impact hammer configured to be raised by a flexible cord, wherein the flexible cord is directed by the drill mast and is received onto the sheave or the drill mast, or configured to articulate in a ball and socket.

Moseley shows a sheave 24 rotatably configured on a drill mast 11; a motor 60 coupled with the sheave and driven by the PTO (col. 5, line 26); an impact hammer 28 configured to be raised by a flexible cord 45, wherein the flexible cord is directed by the drill mast and is received onto the sheave and the drill mast is configured to articulate in a ball and socket 129.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to substitute the combination sampling device with the Moseley sampling device as indicated by applicant "Many different types of drilling ... " [0059].

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. in view of Brazell II and Moseley as applied to claims 15 and 8, respectively, above, and further in view of Henson (4081040).

The combination discloses an ATV p.t.o powering an impact hammer type drill but not a sample tube that resides within the drill bit while the drill bit is turning, such that the hole is bored with the sample tube contained within the drill bit; a core sample, the core sample collected once the drill bit reaches a depth by dropping the impact hammer on a sample tube extension member, wherein the sample tube resides within the drill bit while the drill bit is turning, such that the hole is bored with the sample tube contained within the drill bit.

Henson describes a sample tube 69 that resides within the drill bit 21 while the drill bit is turning, such that the hole is bored with the sample tube contained within the drill bit, a core sample, the core sample can be collected once the drill bit reaches a depth by dropping the impact hammer 78 on a sample tube extension member wherein the sample tube resides within the drill bit while the drill bit is turning, such that the hole is bored with the sample tube contained within the drill bit.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to substitute the combined sampling device with the Henson sampling device as indicated by applicant "Many different types of drilling ... " [0059].

Claims 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher in view of Brazell, II as applied to claim 28 above, and further in view of Rust et al.

The combination discloses an ATV p.t.o powering a drill but not a wireless link to provide control of the drill motor using a remote control device, the remote control device controlling a position of the drill motor on the drill mast, or the remote control device controlling a speed of rotation of the drill bit.

Rust et al. portray wireless control (col. 12, line 7) of a drilling operation utilizing the p.t.o. (col. 11, line 55).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to control the drill via remote control, as portrayed by Rust et al., in order to see the drill during drilling.

Allowable Subject Matter

Claims 27 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Smith whose telephone number is 571-272-7034. The examiner can normally be reached on T-F, 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Bagnell
Supervisory Patent Examiner
Art Unit 3672

MJS MJS
30 August 2005